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**An Analytical Method For Determining Strychnine Residues In Soil Samples.** D. Hurlbut, R. Timm, R. Starr, M. Goodall; Denver Wildlife Research Center, Denver, CO, USA

A reversed-phase ion pair chromatographic method was developed for strychnine analysis to support a soil sorption environmental fate study. The study utilized four soil types and five concentration levels of strychnine alkaloid in 0-01M CaCl<sub>2</sub> aqueous solutions. The primary goal was to develop an analytical method that could quantify strychnine in soil and aqueous solution samples. Development experiments were performed to ascertain the methodology that best met the study requirements. Following development, validation experiments were performed on the resulting methodology to evaluate analyte recovery, detection limits, response linearity, and ruggedness. The validated method was then used in the environmental fate study. The method required the extraction of soil samples with sodium hydroxide, n-butyl chloride, and methylene chloride. Strychnine quantitation was performed using high performance liquid chromatography (HPLC) with UV detection. Method recoveries of strychnine from quality control soil samples were in good agreement with the validation recovery data. Also, a high degree of precision was demonstrated between triplicate study samples, in most cases. The method developed for the sorption study generated a precise data set which may be used to predict the movement of strychnine alkaloid within the environment.